

[54] ELECTROMAGNETIC AND
ELECTROSTATIC SHIELDING FOR
ELECTRONIC EQUIPMENT[76] Inventor: Robert G. Dickie, 15 Valley Trail,
Rural Route #1, Newmarket,
Ontario, Canada, L3Y 4V8

[21] Appl. No.: 190,371

[22] Filed: May 5, 1988

[51] Int. Cl.⁴ H04N 5/64; H04N 5/645[52] U.S. Cl. 358/245; 358/254;
313/402; 313/479; 313/482; 174/35 GC;
174/35 R[58] Field of Search 358/245, 254;
220/2.1 A; 174/35 GC, 35 R; 361/424;
313/402, 479, 482, 313

[56] References Cited

U.S. PATENT DOCUMENTS

2,797,408	6/1957	Penn et al.	358/245
3,140,342	7/1964	Ehrreich	174/35 GC
3,431,454	3/1969	Sanders	358/245
3,952,152	4/1976	Lill	358/245
4,246,613	1/1981	Choder et al.	358/245
4,247,737	1/1981	Johnson	174/35 GC
4,381,421	4/1983	Coats et al.	174/35 R
4,412,255	10/1983	Kahlman et al.	358/245
4,468,702	8/1984	Jandrell	358/245
4,514,585	4/1985	Paynton	174/35 GC
4,551,765	11/1985	Meeder	358/245
4,556,821	12/1985	Cooper	358/245
4,621,294	11/1986	Lee	220/2.1 A
4,633,322	12/1986	Fourny	358/254
4,646,159	2/1987	Beaumont	358/254
4,686,576	8/1987	Dickie et al.	358/245
4,692,809	9/1987	Beining	358/247
4,701,801	10/1987	Hobbins	358/245
4,710,591	12/1987	Rochester	358/245
4,795,941	1/1989	Noda	313/479

FOREIGN PATENT DOCUMENTS

2187893 9/1987 United Kingdom 174/35 R

OTHER PUBLICATIONS

Conductive Gasket; French et al; vol. 17, No. 5; 10-74.
Gaskets That Block EMI; John Severinsen; vol. 47, No.
19; 8-75.

Shielding Prod. & Serv.; Primec Corp.; pp. 1-22.

Primary Examiner—James J. Groody

Assistant Examiner—Jerome Grant

Attorney, Agent, or Firm—Robert O. Nimtz

[57] ABSTRACT

A method and structure for assembling cathode ray tube electronic equipment is disclosed in which a sheet metal cage is assembled inside the plastic housing to enclose the electronic components. The face of the cathode ray tube is covered with a fine conductive mesh which is engaged by the bezel surrounding the front edges of the cathode ray tube. A projecting lip on the inner edge of the bezel, contoured to match the tube face, engages the mesh to keep it flat and smooth against the face of the tube. Simultaneously, flanges on the front of the cage are attached by self-tapping screws to bosses on the back side of the bezel so as to capture the edges of the mesh in conductive contact against the cage flanges. Conductive gaskets may be used to improve the electrical contact between the parts and thus improve the tightness of the shield. Internal shielding may also be provided by can-shaped shields affixed to the vertical walls of the cage and positioned so as to enclose components mounted on horizontal surfaces inside the cage. The decorative housing mates with the rear edge of the bezel and is attached to the rear of the cage by self-tapping screws. These piece parts may be selectively assembled into equipment cabinets with varied levels of shielding by using or omitting various shielding elements such as the mesh, the gaskets, the number of assembly screws or the various surfaces of the shielding cage.

5 Claims, 4 Drawing Sheets

